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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,149	03/27/2001	David E. Krebs	MGW-001	2652
959	7590	12/27/2004	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			KIM, CHONG R	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,149

Applicant(s)

KREBS ET AL.

Examiner

Charles Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/1/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Election

1. Applicant's election of Species A, claims 1-10 in the reply filed on June 1, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 11-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

2. The drawings are objected to because they are of insufficient quality for publication.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-4, 6-9 are rejected under 35 U.S.C. 102(a) as being anticipated by the article entitled "Automatic Gait Recognition" by Nixon et al. ("Nixon").

Referring to claim 1, Nixon discloses a method for distinguishing an individual, comprising the steps of:

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- a. acquiring image data of an individual page (3/5);
- b. computing a gait parameter of the individual from the image data (page 3/5. Note that the "Gait signatures" are interpreted as the gait parameter, see figure 4b); and
- c. determining a match between the gait parameter of the individual and a particular gait parameter in a reference database to distinguish the individual (page 3/5 and Table 1).

Referring to claim 2, Nixon further discloses that a video camera is utilized to obtain the image data of the individual (page 3/5).

Referring to claim 3, Nixon further discloses that the gait parameter includes a foot rotation (top of page 3/2) or a gait velocity (bottom of page 3/2).

Referring to claim 4, Nixon further discloses that in the step of computing, the image data is segmented, tracked and sequenced (page 3/5).

Referring to claim 6, see the rejection of at least claim 1 above. Nixon further discloses a system that comprises an image data manipulation module and a distinguishing module (page 3/3, section 3.1. Note that the automatic computer vision system is interpreted as a system comprising an image data manipulation module and a distinguishing module).

Nixon does not explicitly disclose an image acquisition device. However, Nixon discloses the step of acquiring image data of an individual page, as noted above (claim 1). The Examiner notes that an image acquisition device is an inherent feature in Nixon because the image data of the individual is inherently obtained from an image acquisition device.

Referring to claim 7, see the rejection of at least claim 2 above.

Referring to claim 8, see the rejection of at least claim 3 above.

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Referring to claim 9, see the rejection of at least claim 4 above. Nixon further discloses that the data manipulation module includes a data collection and pre-processing unit, and image segmentation and identification unit, and a segment tracking and sequence unit (page 3/3, section 3.1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the article entitled "Automatic Gait Recognition" by Nixon et al. ("Nixon") and the article entitled "Cardboard People: A Parameterized Model of Articulated Image Motion" by Ju et al. ("Ju").

Referring to claim 5, Nixon further discloses that a three-dimensional model of the individual is constructed from a volumetric model (page 3/2, section 2.3), but does not explicitly disclose that the three-dimensional model is constructed from polyhedra. However, this feature was exceedingly well known in the art. For example, Ju discloses a three dimensional-model of an individual that is constructed from polyhedra (page 1, section 1 and Figure 1).

Nixon and Ju are combinable because they are both concerned with determining gait parameters of an individual from image data for biometric purposes. At the time of the

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invention, it would have been obvious to a person of ordinary skill in the art to modify the three-dimensional model of Nixon so that it is constructed from polyhedra, as taught by Ju. The suggestion/motivation for doing so would have been to provide an accurate representation of the individual's motion (Ju, page 1, section 1). Therefore, it would have been obvious to combine Nixon with Ju to obtain the invention as specified in claim 5.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the article entitled "Automatic Gait Recognition" by Nixon et al. ("Nixon").

Referring to claim 10, Nixon does not explicitly disclose that a match is determined if the gait parameter of the individual and the particular gait parameter in the reference database agree to within a particular tolerance. However, Official notice is taken that it was exceedingly well known in the art to determine a match between two parameters when the two parameters agree to within a particular tolerance. Therefore, it would have been obvious to determine a match in Nixon's system if the gait parameter of the individual and the particular gait parameter in the reference database agree to within a particular tolerance. The suggestion/motivation would have been to provide a robust matching algorithm that takes into account factors such as noise and machine/human error.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ck

December 9, 2004


Jon Chang
Primary Examiner